

CLAIMS

What is claimed is:

1. A driving apparatus, comprising:
a blade on which an object is mounted;
a plurality of elastic support members supporting the blade and elastically movable with respect to the blade; and
a servo-mechanism to drive the blade in a plurality of directions;
wherein the plurality of elastic support members are grouped into pairs of elastic support members, a member of the pair arranged to face an other member of the pair with respect to a center of rotation of the blade, and distances between the elastic support members in the respective pairs are substantially equal.
2. A driving apparatus as set forth in claim 1, wherein the object mounted on the blade is an objective lens, and the driving apparatus is a driving apparatus for an optical pickup.
3. A driving apparatus, comprising:
a blade on which an object is mounted;
a plurality of elastic support members supporting the blade and capable of elastically moving with respect to the blade; and
a servo-mechanism driving to drive the blade in a plurality of directions;
wherein the plurality of elastic support members are divided into a first group of elastic support members symmetrically arranged at positions separated a first distance from a center of rotation and a second group of elastic support members symmetrically arranged at other positions separated an other distance from the center of rotation, and a gap between a neighboring elastic support member of the first group and an elastic support member of the second group is smaller than gaps between the elastic support members in their own group.
4. A driving apparatus as set forth in claim 3, wherein the object mounted on the blade is an objective lens, and the driving apparatus is a driving apparatus for an optical pickup.
5. A driving apparatus, comprising:
a blade on which an object to be driven is mounted;

a servo-mechanism to drive the blade in a plurality of directions;
a plurality of elastic support members, the plurality of elastic support members arranged in pairs; and
wherein a distance from a center of rotation of the blade to each end of the plurality of elastic support members is substantially equal.

6. A driving apparatus as set forth in claim 5, wherein the object mounted on the blade is an objective lens, and the driving apparatus is a driving apparatus for an optical pickup.

7. A driving apparatus as set forth in claim 5, wherein a deformation ability of each of the plurality of elastic support members arranged in pairs is substantially equal.

8. A driving apparatus, comprising:
a blade on which an object to be driven is mounted;
a servo-mechanism to drive the blade in a plurality of directions;
a plurality of elastic support members, the plurality of elastic support members arranged in a first group of pairs and a second group of pairs; and
wherein a distance from a center of rotation of the blade to each end of elastic support members in the first group is substantially equal to a first distance, the distance from a center of rotation of the blade to each end of elastic support members in the second group is substantially equal to a second distance, the first and second distances not substantially equal to each other, and the distance between ends of members in different groups of pairs is less than a distance between ends of members in different pairs of a same group.

9. A driving apparatus as set forth in claim 8, wherein the object mounted on the blade is an objective lens, and the driving apparatus is a driving apparatus for an optical pickup.

10. A driving apparatus as set forth in claim 8, wherein a deformation ability of each of the plurality of elastic support members arranged in pairs is substantially equal.

11. A driving apparatus, comprising:
a blade on which an object to be driven is mounted;
a mechanism to drive the blade in a plurality of directions; and

a plurality of elastic support members with a fixed position of each of the plurality of elastic support members substantially located on an imaginary circle having a center on an axis of rotation of the blade.

12. A driving apparatus, as set forth in claim 11, wherein the plurality of elastic support members are arranged in pairs.

13. A driving apparatus, comprising:
a blade on which an object to be driven is mounted;
a mechanism to drive the blade in a plurality of directions; and
a plurality of elastic support members each deformed a substantially equal amount during a movement of the blade.

14. A driving apparatus, as set forth in claim 13, wherein the plurality of elastic supports members are arranged in pairs.

15. A driving apparatus, comprising:
a blade on which an object to be driven is mounted;
a mechanism to drive the blade in a plurality of directions; and
a plurality of elastic support members each having a substantially same amount of tensile force during a movement of the blade.

16. A driving apparatus, as set forth in claim 15, wherein the plurality of elastic support members are arranged in pairs.

17. A driving apparatus, comprising:
a blade on which an object to be driven is mounted;
a mechanism to drive the blade in a plurality of directions;
a plurality of elastic support members, the plurality of elastic support members arranged in at least three groups of pairs;
wherein a distance from a center of rotation of the blade to an end of each of the plurality of elastic support members in a first group is substantially equal, a distance from a center of rotation of the blade to an end of each of elastic support members in the second group is substantially equal to a first distance, the distance from the center of rotation of the blade to an end of each of the elastic support members in the third group is substantially equal to a second distance different then the first distance, and the distance between ends

of members in different groups of pairs is less than a distance between ends of members in different pairs in a same group.